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ABSTRACT

A case study investigated the writing strategies use by high ability seventh graders (n=4) responding to explanatory tasks from the Maryland Writing Test (MWT), a state-mandated writing assessment. Central questions were: (1) what are the writing strategies elicited by the MWT?; (2) what evidence is revealed of participants' self-monitoring strategies?; and (3) what is revealed about the origins of participants' writing strategy knowledge? Another goal was to test the efficacy of utilizing the case study approach in a construct validity writing assessment study. Data included think-aloud protocols, observer notes, interviews with participants and their language arts teachers, and participants' written responses. Findings included: (1) participants spent more time in drafting and revising than on prewriting; (2) although participants clearly exhibited individual differences, the MWT elicited more translating and reviewing actions than planning actions from all participants; (3) most participants' planning actions were content related; (4) rereading of text and reviewing for word and sentence concerns made up the largest part of reviewing actions; (5) actions categorized as self-monitoring were low for all participants, but the highest and lowest scoring participants had the highest proportions; (6) data revealed instructional emphasis on a multi-stage writing process, content planning strategies, and other elements of current writing instruction and influences on motivation, content planning, and reviewing; and (7) participants identified teachers, parents, peers, books, and media as contributing to writing knowledge. Data support the MWT's validity in eliciting responses which represent a construct of writing representing the recursive, hierarchical, and complex nature of composing. (Contains 66 references, four data tables, and six appendixes containing prompts, writing actions codes, and additional data.) (Author/NKA)

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ABSTRACT

Title of paper: AN INVESTIGATION OF WRITING STRATEGIES USED BY HIGH ABILITY SEVENTH GRADERS RESPONDING TO A STATE-MANDATED EXPLANATORY WRITING ASSESSMENT TASK

William Mark Lynch, Doctor of Philosophy

This case study was an investigation of the writing strategies used by high ability seventh graders (N=4) responding to explanatory tasks from the Maryland Writing Test (MWT), a state-mandated writing assessment. The central research questions were (1) What are the writing strategies elicited by the MWT? (2) What evidence is revealed of participants' self-monitoring strategies? and (3) What is revealed about the origins of participants' writing strategy knowledge? A final goal was to test the efficacy of utilizing the case study approach in a construct validity writing assessment study. Data included think aloud protocols, observer notes, interviews with participants and their language arts teachers, and participants' written responses. The researcher analyzed protocol data for actions categorized as planning, translating, reviewing, and metacomments in order to compare the data to previous research on writing process and writing assessments. Characteristics of current writing instruction provided the basis for analyzing study data about origins of writing strategy knowledge. The findings included the following: (1) participants spent more time on drafting and revising than on prewriting;(2) although participants clearly exhibited individual differences, the MWT elicited more translating and reviewing actions than planning actions from all participants; (3) most participants' planning actions were content-related; (4) rereading of text and reviewing for word and sentence concerns made up the largest proportions of reviewing actions; (5) actions categorized as self-monitoring were low for all participants, but the highest and lowest scoring participants had the highest proportions; (6) data revealed instructional emphasis on a multi-stage writing process, content planning strategies, and other elements of current writing instruction as well as influences on motivation, content planning, and reviewing; and (7)participants identified teachers, parents, peers, books, and media as contributing to writing knowledge. Data from this study support the MWT's validity in eliciting responses which represent a construct of writing representing the recursive, hierarchical, and complex nature of composing. (66 references are attached, and 6 appendixes conclude the paper.)

CS 216 328

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An Investigation of Writing Strategies Used by High Ability Seventh Graders Responding to a State-Mandated Explanatory Writing Assessment Task

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Running Head: An Investigation of Writing Strategies

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Running Head: An Investigation of Writing Strategies

The progress of education in the United States is toward higher literacy expectations for all students (Resnick & Resnick, 1977; Schudson, 1996). The political need to confirm schools' achievement of these new literacy levels demands large-scale assessments that are appropriate to higher level skills, especially in writing (e.g. Baxter, Glaser, & Raghavan, 1994; Campbell, Reese, O'Sullivan, & Dossey, 1996; DeFina, Anstendig, & DeLawter, 1991; Garcia & Pearson, 1991; Hinchey, 1995; Mitchell, 1992; Mullis, Dossey, Campbell, Gentile, O'Sullivan, & Latham, 1994; O'Neil & Abedi, 1996; Perrone, 1991; Rosenshine, 1995). Direct writing assessments have been created that incorporate extended, constructed responses--actual written answers that are rated by scorers rather than machines.

Issues of validity--what it is that these new measures are actually measuring--need exploration. Some studies have focused on concurrent validity, comparisons between direct and indirect writing assessments (Ackerman & Smith, 1988; Benton & Kiewra, 1986; Burger & Burger, 1994; Fisher, 1992; Hoffman, 1993; Sabban & Kay, 1987; Scharton, 1996). On the other hand, several criterion validity studies have examined the correlation between writing assessment scores and other factors such as GPA (Aumiller, 1989; Hoffman, 1993; Prillaman, 1991). Rather than comparing scores and other performances to direct writing assessment results, however, an examination of what students actually do as they respond to assessments could contribute important knowledge to construct validity questions (Baxter et al., 1994; Camp, 1996).

This case study investigating the writing strategies used by four high-ability seventh graders responding to state-mandated explanatory writing assessment tasks addressed three questions: 1) What are the

writing strategies elicited by the MWT? (2) What evidence is revealed of participants' self-monitoring strategies? and (3) What is revealed about the origins of participants' writing strategy knowledge? A secondary purpose was to test the efficacy of utilizing the case study approach in a construct validity writing assessment study.

Theoretical Framework

The construct and content validity of the Maryland Writing Test (MWT), the assessment used in this study, was examined by comparing study data to profiles of novice writers supplied by previous writing process research, to elements of the writing construct measured by other direct writing assessments, and to elements of instruction characteristic of current writing instruction paradigms.

Research on writing development has generated a useful model of the writing process. This model is not linear but rather recursive and hierarchical, reflecting a process in which writers can change strategies or actions at any time as their writing goals change (Flower & Hayes, 1981a,1981b; Kellogg, 1994). Use of this model has resulted in a set of categories useful in analyzing writers' actions and strategies. Major categories utilized in research by Flower and Hayes (1981a,1981b) include planning, translating (creating text), and reviewing. Planning categories include planning for goals and purposes (planning to do), for content (planning to say), and for strategies; reviewing action categories include reviewing for differing levels of concern (word, sentence, paragraph, and global); and metacomments (comments writers make about the writing process in general or about their writing behavior apart from the immediate task). Two additional categories created for this study were rereading of participant text and rereading of the MWT prompt. These categories are useful in

representing the complexity of writing and in linking this study's results to previous research.

Many studies of overall writing development compare the writing activities of novice versus expert writers. This research has identified several characteristics typical of novice writers: 1) difficulty in coping with the many constraints involved in the writing task (see Kellogg, 1990); 2) lack of planning before drafting (Emig, 1971; Hillocks, 1986; Kellogg, 1994; Pianko, 1979; Walvoord, Anderson, Breihan, McCarthy, Robison, & Sherman, 1995); 3) lack of reviewing (Kellogg, 1994; Pianko, 1979) especially for anything but surface-level concerns (Beach 1976; Bridwell, 1980; Faigley & Witte, 1981; Perl, 1979; Pianko, 1979; Sommers, 1978, 1980; Yagelski, 1995); and 4) use of cognitively inefficient strategies (Flower & Hayes, 1981a, 1981b). Also, research on novice writers' self-monitoring suggests that more proficient writers have a stronger awareness of and control over their composing strategies (Mishra, 1993).

The limited research comparing direct with indirect writing assessments indicates that each type of test measures different constructs of composing knowledge. The literature suggests that indirect writing tests measure declarative composing knowledge, organizational abilities, and usage knowledge, while the direct writing tests measure students' actual procedural knowledge, most specifically the complex abilities to generate, organize, and present textual content (Ackerman & Smith, 1988; Burger & Burger, 1994; Fisher, 1992; Sabban and Kay, 1987).

A perspective on writing instruction appropriate to this study is one which focuses on the establishment, omission, and re-emergence of explicit writing strategy instruction. Since Aristotle (335 B.C./1991) and Cicero (circa 55 B.C./1988), teaching rhetoric and composition

included the elements of invention, arrangement, and style (Abbott, 1990; Berlin, 1984; Grabe & Kaplan, 1996; Lindemann, 1995; Woods, 1990). In the Nineteenth Century, changes in perceptions of knowledge led to the omission of direct and explicit instruction in planning (generating) discourse content, i.e. invention (Berlin, 1984; Halloran, 1990; Winterowd & Blum, 1994). Rather than the generation of discourse knowledge, instruction emphasized arrangement and style, the management of content (Berlin, 1987; White, 1994). Mid-Twentieth Century changes in perceptions of learning and language--especially those connected to cognitive psychology, language development, and linguistics--redirected pedagogy toward processes (Berlin, 1987,1990; Hairston, 1984; Lindemann, 1995).

Recent writing instruction paradigms share a belief in a recursive process of writing and in teachers becoming involved in that process. Perhaps the most important characteristic of current writing instruction is the idea that writing can be taught and that writing teachers can provide environments, situations, and instruction that will lead students to use more efficient and successful composing strategies (Hairston, 1984). An important element of the last characteristic is the explicit teaching of writing strategies. For example, one strategy called the QUAD was taught to these study participants expressly to help students generate content for responding to the MWT. The QUAD organizer consists of three columns for the student to fill up with content: one column for topic-centered questions (who, what, where, when, why, how), one for answers, and one for details. The student would then use the content from this organizer to draft a response.

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Method and Data Sources

This case study examines the strategies used by four seventh grade students as they respond to explanatory writing prompts from the Maryland Writing Test (MWT). The MWT is a state-mandated direct writing assessment consisting of two sub-tests, one explanatory and one narrative. Successful completion of this test along with tests in citizenship, math, and reading are required for high school graduation in Maryland. This study used only the explanatory prompts.

Participants were seventh grade volunteers from high ability English language arts classes, teacher-identified as successful writers who had probably passed the MWT given two months previously and who were able to communicate easily and comfortably with adults. The participant selection criteria of competence in the construct of interest is similar to other writing research which sought to limit complicating effects of learning problems (Baxter et al., 1996; Breetvelt, van den Bergh, & Rijlaarsdam, 1994; Levin, 1976; Oliver, 1995; Schofield, 1990). Similarly, students who were able to communicate easily with adults were solicited to remove as much as possible the element of reticence as an uncontrolled variable. Two males and two females were selected in order to control for possible gender differences.

Participants were also interviewed as were their three English language arts teachers. All interviews and study sessions took place in the participants' middle school in a suburban area of Maryland.

The primary data was collected by using audiotaped verbal protocols (Ericsson & Simon, 1993) during two sessions. In the first session, participants practiced thinking aloud and then responded to a state explanatory writing prompt (see Appendix A); in the second session, each participant responded to a second prompt (see Appendix A)

and then was interviewed. The teachers were interviewed within three weeks of the final participant session.

Data sources included: (1) observer notes on amounts of time participants spent prewriting (before first draft), drafting (writing the first draft), and revising (after the first draft) and descriptions of relevant participant actions or behavior; (2) protocols of transcribed and coded participant writing actions which included planning, translating, reviewing, metacomments, and sub-categories; (3) transcriptions of structured interviews with participants and their language arts teachers; and (4) participants' written test responses. Data sources (1) and (2) above are analyzed in terms of percentages, means, and standard deviations. Data sources (1), (2), (3), and (4) provided data regarding participants' strategies, self-monitoring actions, and origins of writing knowledge.

Data Analysis

Protocol tapes were transcribed and then segmented with a procedure similar to that used by Breetvelt et al. (1994). Transcriptions were then marked by scorers in the following categories similar to those used in previous research (Flower & Hayes, 1981a, 1981b; Swarts, Flower, & Hayes, 1984): planning for purposes and goals, planning for content, and planning strategies; translating (producing text); reviewing for word, sentence, paragraph, or global concerns, rereading of text and rereading of prompts; and metacomments, comments about the writer or the process in general, not in reference to the specific text (see Appendix B for coding categories, definitions, and examples).

Raters, two English language arts resource teachers with several years teaching experience and who were familiar with the MWT as well as MWT-centered instruction, were trained with transcripts from a pilot

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study until an interrater reliability rate of 85% was reached. Raters were given copies of participants' planning notes, first and second drafts, MWT prompts and revision checklist, and the researcher's notes. The raters individually scored the eight transcripts, compared codings, and resolved any inconsistencies between them. The researcher was the final arbiter in cases of disagreement.

Participants' written responses were rated and analyzed by the then director of the MWT who has been involved in all facets of testing for several years.

I organized interview data by segments, a method similar to that described by Bogdan and Biklen (1992).

Results

Question 1) What are the writing strategies elicited by the MWT? Although participants varied in their strategies regarding time and actions, there were strong similarities.

Time

First, all participants spent the least time on prewriting (time before drafting) and the most time on drafting (time spent with the first draft) and revising (time after completing the first draft). Group means for time proportions were 13% for prewriting, 41% for drafting, and 46% for revising (see Table 1 and Appendix C).

Alan (a fictitious name for the first participant)wrote responses that both received passing scores of 3 out of 4. Alan spent almost no time prewriting. In his interview, Alan said that "I already know pretty much what I want to say before I have to write it, so there is not much thinking during the process." Alan spent roughly two-thirds of his time drafting and one-third revising in the first session and a reversal of those two latter proportions in the second session.

Insert Table 1 about here

Beth, who scored a 3 on her first response and a 4 on her second, spent 13% of her total time prewriting, using her favorite type of prewriting or invention procedure—a list. She spent 51% of her time revising and 36% drafting.

Carrie scored a 3 on both responses. She spent 13% of her time in prewriting and seemed to value the idea-generating phase of writing a great deal: Her teachers had taught her that she should "not be afraid to put down . . . all [her] thoughts." Carrie spent the least time revising of all participants (34%) and the highest proportion of time drafting (50%).

Don seemed to struggle most with his writing, and his responses both for the study and for the real MWT had the lowest scores of the group. His scores for the study were both 2's—failing scores. Interestingly, it was Don who spent the largest proportion of writing time in the prewriting stage (24%), with 35% in drafting and 42% in revising.

Actions

Just as they spent most of their time with revising and drafting, participants spent more effort on reviewing and translating actions and less effort on planning actions. Group means for proportions of writing actions were 18% for planning, 29% for translating, and 53% for reviewing. One student spent most of her actions on translating, but the others concentrated slightly more on actions coded as reviewing (see Table 2 and Appendix D).

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Insert Table 2 about here

Alan's proportions for planning (5%), translating (40%), and reviewing (55%) closely paralleled his related time proportions. Although he did not take time for prewriting, planning for content did occur, and 80% of it occurred during the drafting phase, intermixed with translating and reviewing actions.

Beth's action proportions were 16% for planning, 17% for translating (the lowest of all participants), and 66% for reviewing--the highest of all participants. Beth's reviewing actions occurred mostly during revising but also during the other phases: 79% during revising, 13% during prewriting, and 8% during drafting.

Carrie's mean proportion for planning actions (26%) was tied with Don for the highest of the group, and her proportion of translating actions (40%) was tied with Alan's as the highest of all participants. She seemed to define the writing task more in terms of getting ideas down on paper, as mentioned before. Her reviewing actions proportion was only 34%, the lowest of all participants.

Don's proportion of planning actions (26%)was tied with Carrie's for the largest of the group. Only 20% of his actions were coded as translating and 54% as reviewing. The high percentage of planning actions reflects Don's difficulties during the study in using the QUAD prewriting strategy that he had been taught expressly for the MWT. He finally abandoned the QUAD and struggled to find ways to generate content without it.

Planning Actions

Group means for planning actions were 6% for purpose-related planning, 75% for content planning, and 19% for strategy planning. For

all participants, purpose-related planning occurred least often and content planning most often (see Table 3 and Appendix E).

Alan's planning was 90% content-related and took place during the drafting phase, with only 10% strategy-related. Beth's planning actions were 72% content-related, 23% strategy-related, and only 5% purpose-related. Carrie, like Alan, had no purpose-related planning actions, but had 84% content-related and 16% strategy-related. Don, the writer who struggled most, had the highest percentage of purpose-related planning actions (17%); 62% of his planning was content-related and 21% strategy-related.

Insert Table 3 about here

Reviewing Actions

Group mean proportions for reviewing actions were 73% for rereading of drafts, 10% for reviewing at word level, 6% for sentence-level reviewing, 0% for paragraph level reviewing, 6% for global reviewing, and 5% for prompt rereading (see Table 4 and Appendix F).

Besides rereading of text, Alan's reviewing actions were mostly word- and sentence-related, changing a word "I knew I didn't like" and substituting an alternative word for "using a word too many times." Beth was also concerned with word choice and said that she revises for "better words" because "it makes a big difference in the words we use." She said that she also works on sentence phrasing, order, or changing information in parentheses to appositives. Beth used 6% of her reviewing actions for global purposes and 9% (the group high) for prompt rereading. Carrie spent the lowest participant proportion of actions on reviewing. Her word- (15%) and sentence-level actions (17%) were concerned with changing text when "it doesn't sound right."

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Carrie, like Beth, spent nearly a tenth of her reviewing actions on rereading the prompt and 6% on other global-related reviewing. Don had 0% of his reviewing actions concerned with prompt rereading, 11% on word concerns and 2% on sentence concerns, but 11% (the highest) on global reviewing.

Insert Table 4 about here

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(2) What evidence is revealed of participants' self-monitoring strategies? Four types of categorized actions were considered indicators of self-monitoring actions in this study: purpose-related planning, strategy planning, global reviewing, and metacomments. Overall there was little indication of self-monitoring except in the efficiency with which Beth and Carrie worked. Dividing self-monitoring actions by total actions gave the following percentages for the four participants: Alan 1%, Beth 10%, Carrie 6%, and Don 16%. Interestingly, the two participants above the group mean of 8% were the highest and lowest scoring participants, respectively.

(3) What is revealed about the origins of participants' writing strategy knowledge? Performance and interview data indicate that instruction impacted strongly on participants in terms of knowledge of a multi-stage writing process, knowledge of the MWT, prewriting strategies, the importance of reviewing, and motivation for writing. There were no conflicting data between what teachers claimed to have emphasized in instruction and what students revealed about instruction both through interview comments and their performances. All participants exhibited familiarity with a multi-stage conception of the writing process. Similarly, participants seemed well acquainted with MWT format, and three participants actively used the test prompt's

middle paragraph for cues in content planning. All participants were familiar with the QUAD, and two participants actually utilized it.

Beth, Carrie, and Don all spoke of the emphasis former and present teachers had given reviewing for sentence variation, word variety, content elaboration, and creation of a conclusion.

Alan spoke of his fifth grade teacher who had motivated him to write by telling him that the best way to "get someone to listen to you is to be a really effective writer" and by asking him to write his opinions in class journals.

Non-instructional impact on writing came from several sources. For Alan, people, TV, and books give him ideas. Beth mentioned books as a way she learns usage and mechanics such as how to use parentheses and semicolons. Carrie and Don both mentioned their parents as important aids to their writing knowledge.

Conclusions

Although this study is limited by sample size and only one type of writing situation, its deep analysis of each participants' assessment responses contributes perspective to judgements about the construct and content validity of this direct writing assessment.

First, the writing performances elicited by the MWT in this study parallel much from writing process research. At the same time, the results suggest that composing for assessments varies significantly from other writing situations. Participants' performances in this study share the following characteristics of novice writers typically found in previous research: low proportions of planning, especially in terms of strategy and goal planning; low proportions of reviewing actions resulting in meaning changes; low proportions of self-monitoring actions; and for some participants, difficulty in dealing with the constraints of the writing task and the use of cognitively inefficient

strategies. Novice writers' performances in this study differed from previous research in the following: high proportions of revising time and reviewing actions for all participants and a higher proportion of self-monitoring actions in the least successful writer. The first difference may be due to previous instruction and test instructions; the latter seems to indicate the presence of self-monitoring actions both by high ability writers and writers struggling in a task which challenges them. This does agree with previous research indicating that most self-monitoring occurs during periods of intense cognitive activity in planning/prewriting and reviewing/revising (Kellogg, 1994).

Second, study data support the construct validity of the MWT (and similar tests) since the strategies elicited were clearly those of generating, organizing, and reviewing (presenting) written content. First, all participants engaged in nearly all categories of writing actions: three types of planning, translating, and five types of reviewing actions, some of which may indicate self-monitoring. Although the strategies and actions elicited by the MWT are not as complex as the more cognitively rich assessments utilized in performance tasks in which students utilize new knowledge to construct persuasive and expressive responses, they do seem to represent a complexity of writing that might be reasonably expected from students responding to a basic writing test.

Secondly, true to the recursive quality of composing, this study indicates the presence of all three categories of writing actions in all three phases of writing.

Finally, the hierarchical nature of writing was evident, as well. Students allocated time and effort strategically (although not necessarily as efficiently as practiced writers) to solve different problems during different phases in the completion of their responses.

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Within-student differences also reflect the idea of composing strategies that are varied and serve different purposes rather than one linear, unvarying process throughout composing.

In sum, data from this study support the MWT's validity in eliciting a construct of writing which is limited to experiential knowledge and which seems developmentally appropriate in planning, organizational, and review demands, but which maintains the recursive, hierarchical, and complex nature of composing.

The question of content validity is whether or not test content is derived from students' curriculum (Scharton, 1996). This study supports the MWT's content validity since data from this study indicate that participants' MWT responses included strong elements of knowledge from instruction, both long and short term, and instruction quite characteristic of current paradigms of writing instruction. From long-term instruction, participants were familiar with a multi-stage process of writing and with generating ideas for content with personally created and instructionally suggested organizers as well as without organizers. Participants valued writing as an activity, although not necessarily the type of writing measured by the assessment. Finally, teachers had instilled the value of reviewing for style--word choice and sentence variety--in participants.

This case study suggests the value of similarly designed writing assessment construct validity studies which furnish specific description, narratives, and quantifiable data. If it is true that "assessment drives the design of curriculum and instruction by signaling the valued objectives of education" (Shale, 1996, p. 95-6), then educators need new perspectives to increase the certainty that assessments are truly measuring what is of value.

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Table 1
Total Time and Time Spent in Writing Stages (in minutes)

Sessions	Total	Prewriting time	Drafting time	Revising time
A1	45	0	28	17
A2	75	2	22	51
B1	66	7	23	36
B2	42	7	16	19
C1	43	6	22	15
C3	62	11	30	21
D1	58	10	20	28
D2	43	14	15	14
M*	54	7	22	25
SD*	13	5	5	13

N=8
*Rounded to the nearest whole number.

Table 2

Writing Actions per Response: Total', Planning, Translating, Reviewing

Sessions	Total Actions'	Planning	Translating	Reviewing
A1	102	9	47	46
A2	84	1	27	56
B1	166	25	27	112
B2	101	18	19	63
C1	83	17	37	29
C2	127	38	47	42
D1	98	25	19	53
D2	66	17	13	36
M[1]	103	19	30	55
SD[1]	31	11	13	26

N=8.

'Totals may include small numbers of metacomments.

[1]Rounded to the nearest whole number.

Table 3

Planning Actions: Total, for Goals (Pd), for Content (Ps), for Strategies (Pst)

Sessions	Total Planning Actions	Pd	Ps	Pst
A1	9	0	9	0
A2	1	0	0	1
B1	25	2	17	6
B2	18	0	14	4
C1	17	0	14	3
C2	38	0	32	6
D1	25	7	13	5
D2	17	0	13	4
M'	19	1	14	4
SD'	11	2	14	4

N=8.

'Rounded to the nearest whole number.

Table 4

Reviewing Actions: Total, Rereading of Text (Rr), Word Level (Rw), Sentence Level (Rs), Paragraph Level (Rp), Global (Rg), and Rereading of Prompt (Rpt)

Sessions	Total	Rr	Rw	Rs	Rp	Rg	Rpt
A1	46	35	6	3	1	0	1
A2	56	44	6	3	0	1	2
B1	112	85	8	5	0	9	5
B2	63	48	1	2	0	2	10
C1	29	16	5	5	0	3	0
C2	42	22	6	7	0	1	6
D1	53	42	9	0	0	2	0
D2	36	26	1	2	0	8	0
M'	55	40	5	3	0	3	3
SD'	26	21	3	2	0	3	4

N=8

'Rounded to the nearest whole number

APPENDIX A

Maryland Writing Test Explanatory Prompt for Session 1

You have been selected by your principal to help select new teachers for your school. Write a letter to your principal in which you give examples of the characteristics of an effective teacher and of the methods used by such a person.

Before you begin writing, think about the following qualities demonstrated by effective teachers: personality traits; ways of dealing with students; methods of discipline; and classroom activities.

Now write a letter to your principal illustrating the characteristics and methods of an effective teacher.

Maryland Writing Test Explanatory Prompt for Session 2

Suppose your teacher asks you to consider one school rule you think should be changed. This might be a rule about behavior, dress, schedules, or something else. Write a paragraph or more for your teacher explaining one school rule you think should be changed.

Before you begin writing, think about one school rule you think should be changed. Think about what that rule is supposed to do and what effect that rule has now. Think about how you would change the rule. Think about how school would be different if the rule were changed.

Now write a paragraph or more for you teacher explaining one school rule you think should be changed.

APPENDIX B

Table of Writing Actions Codes with Descriptions and Examples

Writing Action	Description	Example from Protocol
Pd: Planning *to do*	Planning general goals or purposes; overall, global planning, such as with topic, audience, form, and purpose.	"Hmmm. . . should I do a business letter?"
Ps: Planning *to say*	Finding, generating, deciding on content to include; note-making or completing organizers; arranging content *before* text is generated.	"What am I trying to say?" While writing down notes: "Going outside for lunch."
Pst: Planning *strategies*	Planning what strategies to use to complete goals; instructions writers give themselves.	"Let's read through this." "Slow down."
T: Translating	Writing out new text, trying out text orally; sometimes previous text may be read in order to stimulate new text creation.	"Dear Mr. Principal"
Rr: Reviewing: rereading of text	Indicates that participant is rereading already generated text.	"Dear Mr. Principal"
Rw: Reviewing for *word level concerns*	Making changes in spelling, word choice.	". . .incorporate both aspects of teaching . . . *methods* of teaching"
Rs: Reviewing for *sentence level concerns*	Making changes in phrasing, sentence arrangement or grammar.	Adding a phrase to an already generated sentence: ". . . to keep the students interested . . . *in learning*."
Rp: Reviewing for *paragraph level concerns*	Changes in paragraph structure or content such as with topic sentence, sentence organization, adding content.	"Let's start a new paragraph."
Rg: Reviewing for *global concerns*	Changes or comments on overall paper regarding topic, audience, form, purpose, completeness, organization, overall quality. Similar to Pd but occurs after first draft is generated.	"I think that's pretty much finished."
Rpt: Rereading prompt aloud	MWT prompt is read aloud.	"Think about what that rule is supposed to do . . . ."
M: Metacomments	Self analytical comments about the writer or writing actions, not strictly related to the topic but about the process of writing itself.	"That's easy." "I never use this (proofreading checklist)."

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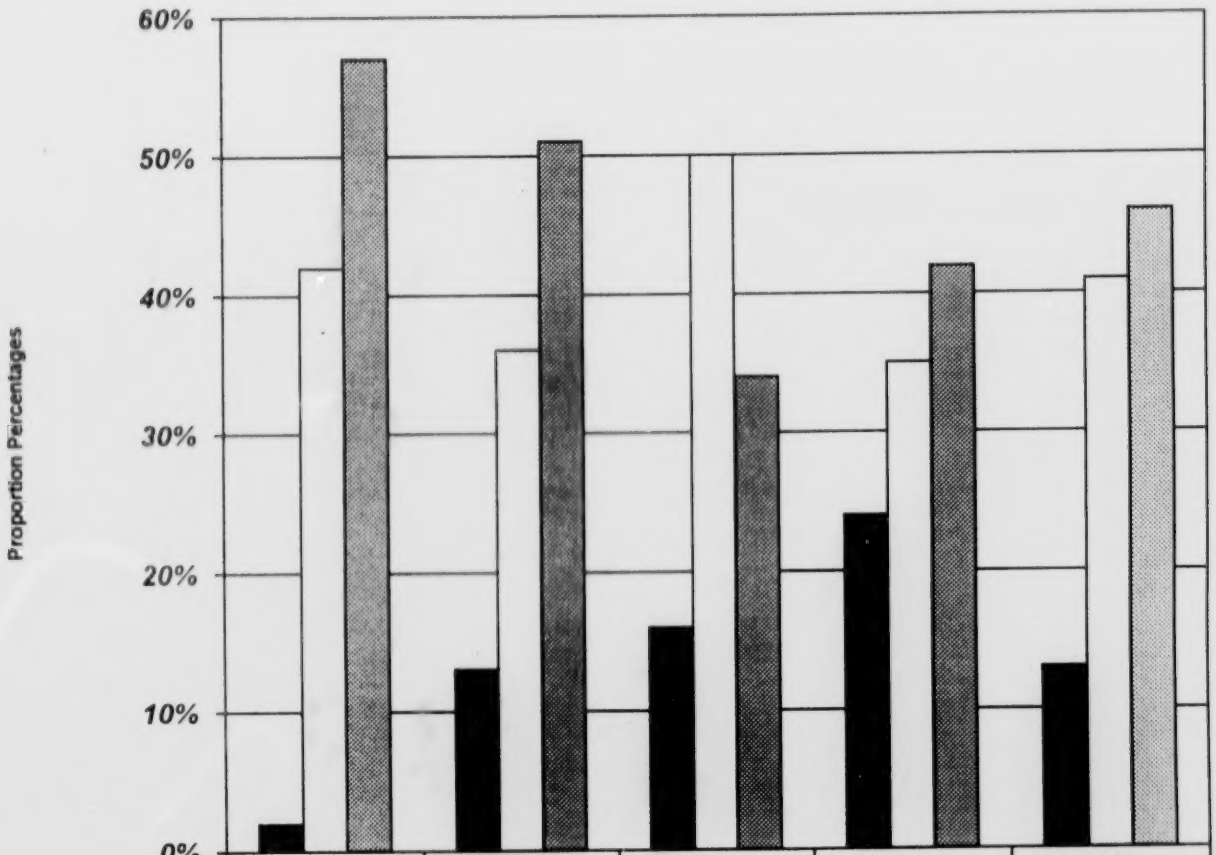
APPENDIX C

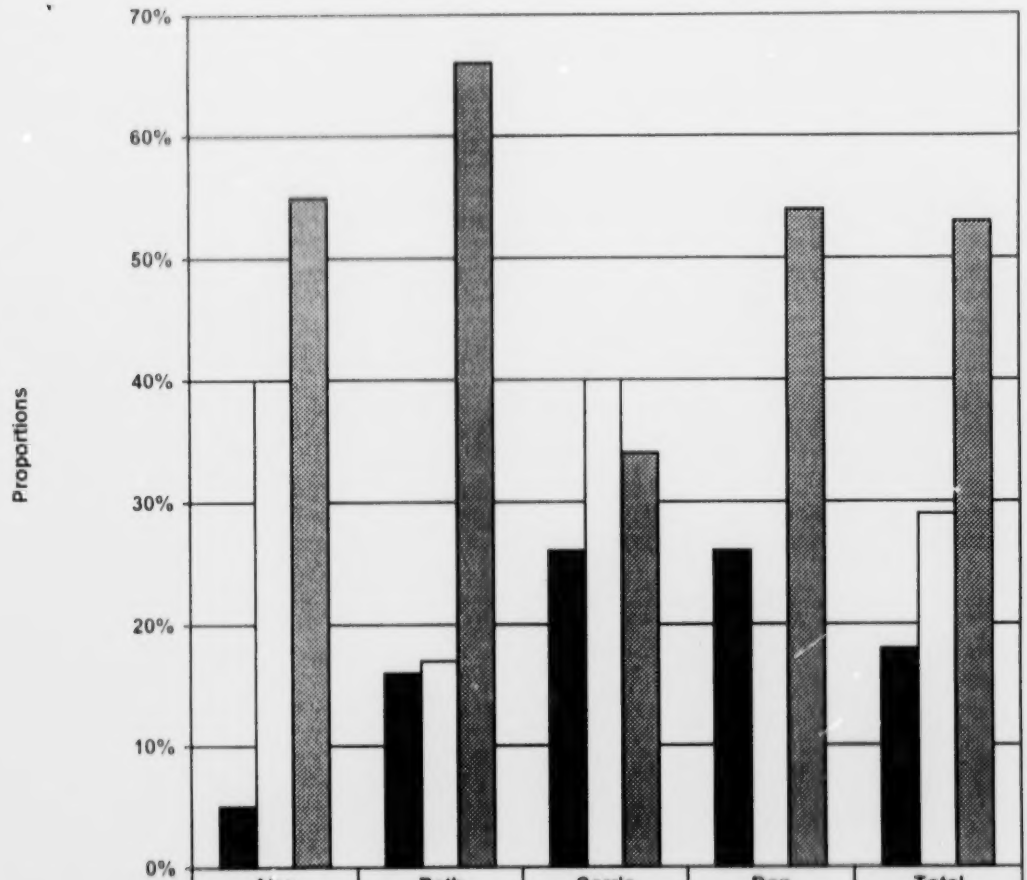
Chart 1 - Mean Time Proportions of Prewriting, Drafting, and Revising Time



	Alan	Beth	Carrie	Don	Total Mean
■ Prewriting	2%	13%	16%	24%	13%
□ Drafting	42%	36%	50%	35%	41%
▨ Revising	57%	51%	34%	42%	46%

APPENDIX D

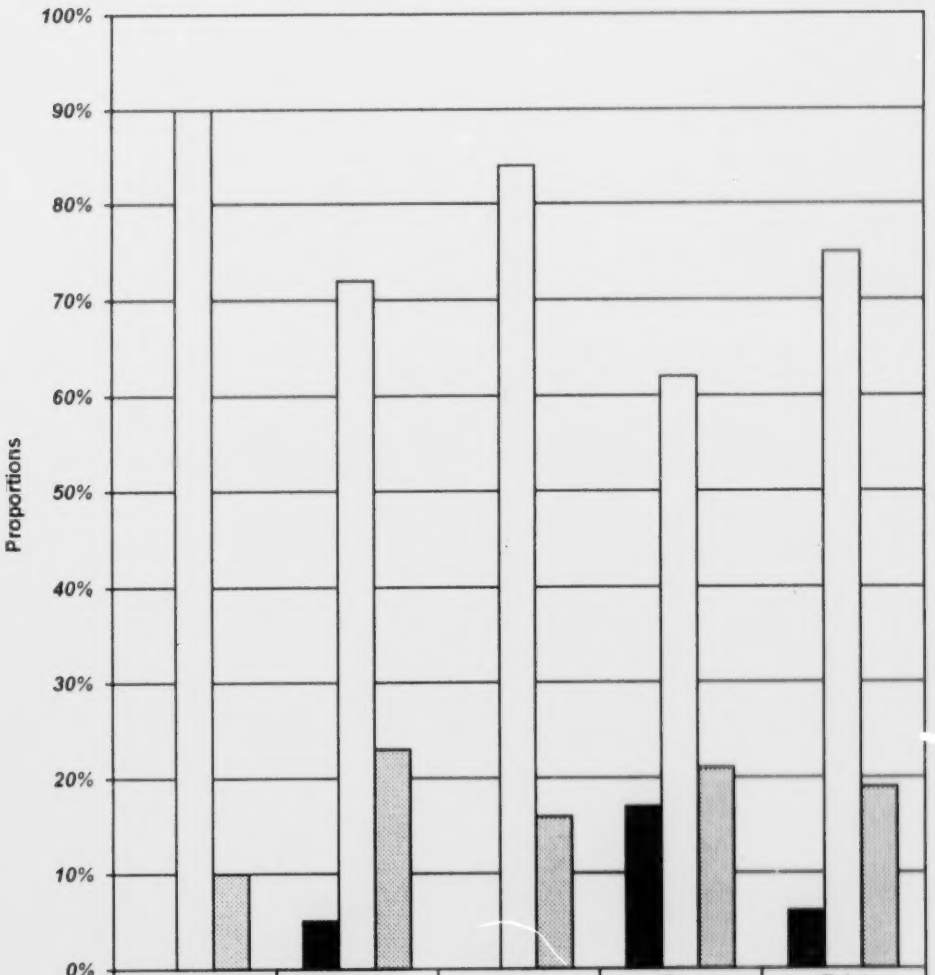
Chart 2 - Mean Proportions of Participants' Planning, Translating, and Reviewing Actions



	Alan	Beth	Carrie	Don	Total
Planning	5%	16%	26%	26%	18%
Translating	40%	17%	40%	20%	29%
Reviewing	55%	66%	34%	54%	53%

APPENDIX E

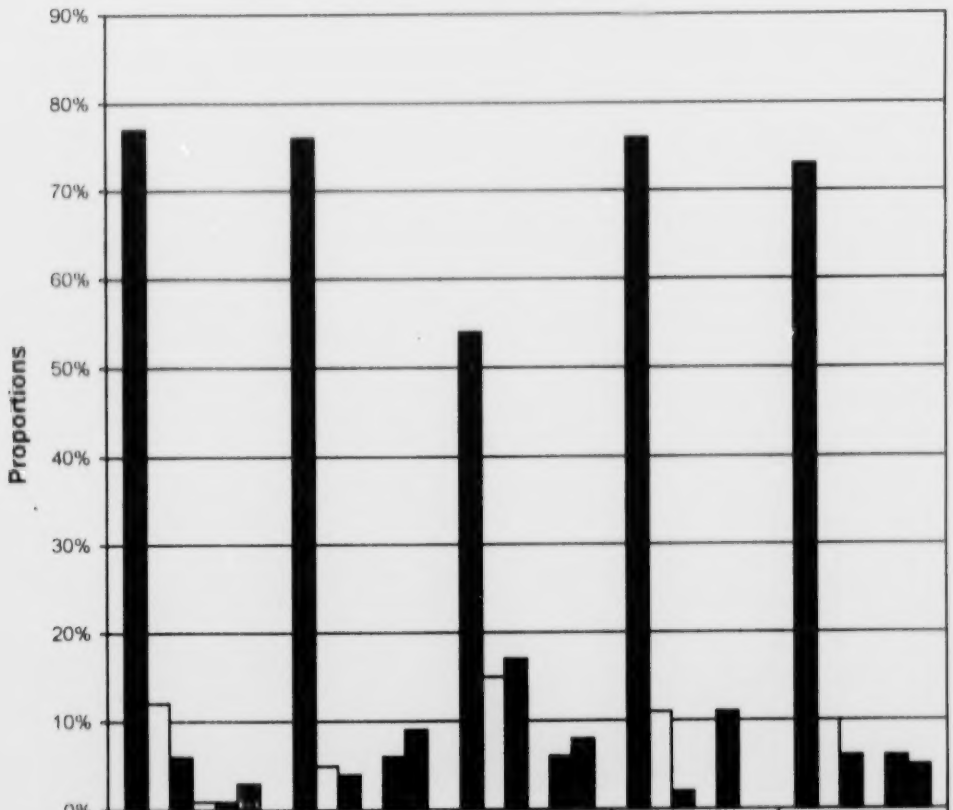
Chart 3 - Mean Proportions of Purpose- (Pd), Content- (Ps), and Strategy-Related (Pst) Planning Actions



	Alan	Beth	Carrie	Don	Total
Pd	0%	5%	0%	17%	6%
Ps	90%	72%	84%	62%	75%
Pst	10%	23%	16%	21%	19%

APPENDIX F

Chart 4 - Mean Proportions of Reviewing Actions: Rereading Text (Rr), Word-(Rw), Sentence-(Rs), Paragraph-(Rp), Global-Level(Rg) and Rereading of Prompt (Rpt)



	Alan	Beth	Carrie	Don	Total
Rr	77%	76%	54%	76%	73%
Rw	12%	5%	15%	11%	10%
Rs	6%	4%	17%	2%	6%
Rp	1%	0%	0%	0%	0%
Rg	1%	6%	6%	11%	6%
Rpt	3%	9%	8%	0%	5%

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